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(54) Title: **IMAGE ENHANCEMENT OF SUBSTANTIALLY COHERENT IMAGING SYSTEMS**

(57) Abstract: A method of imaging a patterned sample comprising acquiring at least one image of the sample by illuminating the sample through an optical arrangement and collecting light reflected from the sample through said optical arrangement, wherein the optical arrangement has a predetermined numerical aperture NA and is located a predetermined distance from the sample. This predetermined distance being offset from a focal distance by an effective Talbot distance multiplied by a predetermined coefficient, the method thereby improving a smoothness of the image of the sample.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL03/00013

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 21/88

US CL : 356/237.5

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 356/237.4, 237.5; 250/201.5; 359/569; 369/44.23; 355/55, 53, 77; 430/311

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
USPTO APS EAST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,373,553 B1 (SINGH) 16 April 2002 (16.04.2002), column 6, lines 29-48.	1-4
Y		5-17
Y	US 5,909,313 A (LEE) 1 June 1999 (01.06.1999), entire reference, especially column 6, lines 1-40; column 7, line 7.	5-17

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Further documents are listed in the continuation of Box C.

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See patent family annex.

\* Special categories of cited documents:

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later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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